DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
WASHINGTON, DC 20350-2000

IN REPLY REFER TO
OPNAVINST 5000.50A
OP-111E
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OPNAV INSTRUCTION 5000.50A

From: Chief of Naval Operations

Subj: NAVY TRAINING SIMULATOR AND DEVICE ACQUISITION AND MANAGEMENT

Ref: (a) DODD 1430.13 of 22 Aug 86 (NOTAL)
(b) DODD 5000.1 of 12 Mar 86 (NOTAL)
(c) DODI 5000.2 of 12 Mar 86 (NOTAL)
(d) DODD 5000.3 of 12 Mar 86 (NOTAL)
(e) DODD 5000.39 of 17 Nov 83 (NOTAL)
(f) SECNAVINST 4130.2 (NOTAL)
(g) SECNAVINST 5000.1B (NOTAL)
(h) SECNAVINST 5000.39A (NOTAL)
(i) OPNAVINST 1500.51A (NOTAL)
(j) OPNAVINST 1500.8M (NOTAL)
(k) OPNAVINST 5000.42C (NOTAL)
(l) OPNAVINST 5000.49A (NOTAL)
(m) OPNAVINST 5200.28 (NOTAL)
(n) OPNAVINST 5311.7 (NOTAL)
(o) OPNAVINST 11102.1 (NOTAL)

Encl: (1) Definitions
(2) Training Device Requirements Document (TDRD)
(3) Training Effectiveness Evaluation Plan (TEEP)
(4) Military Characteristics (MC) Document
(5) Fleet Project Team (FPT)
(6) Quality Asssurance and Revalidation (QA&R)
(7) Responsibilities

1. Purpose. To provide policy and procedures for acquisition and management of training simulators and devices by defining an orderly process that will:

a. Identify training device requirements through an appropriate development plan (DP).

b. Standardize training device acquisition and management (R policies.

c. Require that training devices be addressed in program documentation so that timeliness of training devices can be considered in milestone reviews in order that the requisite funding and logistic support can be assured.

d. Prevent unnecessary procurement and eliminate duplication.

e. Provide monitoring and oversight responsibility.

2. Cancellation. OPNAVINST 1551.7B, OPNAVINST 5000.50, and OPNAVINST 5220.9D.

3. Background. In order to achieve essential mission readiness and safety objectives, weapon systems and major operational equipments must be supported by a comprehensive, effective training system. The Navy's goal is to provide properly configured and supportable training devices to meet both Fleet and Reserve requirements. This will be accomplished through:

a. Early identification, development, and acquisition of training devices as key elements of a comprehensive training system.

b. Early development of life-cycle costs for training devices; including proper identification of training devices in the Planning, Programming, and Budgeting System (PPBS) cycle, thus permitting thorough and accurate assessment of funding versus requirements.

A) c. Establishment of management policies and procedures to support the training device.

4. Scope

a. This instruction has been coordinated with Headquarters, U.S. Marine Corps, and applies to the acquisition and management of training devices developed and produced for Department of the Navy use, except for those programs funded directly from Marine Corps appropriations. Under the responsibilities set forth in Presidential Executive Order 12344 of 1 February 1982, as codified in Public Law 98-525 dated 19 October 1984, the Department of Energy (DOE) has cognizance over the development of training systems and devices used in the training of naval nuclear propulsion plant operators. Accordingly, such systems and devices are not covered by this instruction, but are coordinated separately with DOE.

A) b. For reporting purposes supporting acquisition review for training simulators and devices, the dollar thresholds shall, unless otherwise directed by the Chief of Naval Operations (CNO) on a case-by-case basis, be those thresholds established in DoD Manual 7110.1-M, Part 2 of July 1985 (Budget Guidance Manual (NOTAL) authorized by DoD Instruction 7110.1 of 30 October 1980 (NOTAL)): $10 million or 10% of a project, whichever is

smaller, for research and development appropriations; and for procurement appropriations, $25 million for aviation and $10 million for all others.

5. Definitions. Definitions of selected terms are provided in enclosure (1).

6. Policy

a. Training device acquisition and logistic support will be planned and implemented per this directive and the applicable provisions of references (a) through (o). Training systems shall be in place in sufficient time to train personnel in support of the overall system acquisition initial operational capability (IOC).

b. Training device requirements will be included as part of the program initiation process under the manpower, personnel and training (MPT) considerations of reference (k). Manpower/ Hardware Integration (HARDMAN) MPT methodology is used for developing pre-Milestone I manpower and training requirements per reference (n).

c. Training devices will be planned, programmed, budgeted, supported, reviewed, and managed as part of the weapon, sensor, hull/mechanical/electrical (HM&E), and/or training system they support. Major system training devices shall be identified in the acquisition process in the Integrated Program Summary (IPS), per reference (c). Life-cycle logistics support is documented in the Integrated Logistics Support Plan (ILSP) per reference (l). (R

d. A training device will have the same priority as the weapon and/or system it supports and be funded and supported accordingly.

e. Proposed training devices will neither duplicate existing devices, nor create duplication between shipboard and land-based training devices without the approval of the Deputy Chief of Naval Operations (MPT) and the program sponsor.

f. Training devices which are to replace existing devices will have a plan for the coordination of the training and phasing in the new device while phasing out the old.

g. These policies will not be construed to imply that a training device must be procured from or supported by the prime contractor for the weapon system it supports.

h. Training Device Requirements Documents (TDRDs) will be prepared for training device acquisitions integral to major (A

systems, devices which are major systems by themselves, non-system devices exceeding the stated thresholds, and other acquisition programs as designated by the Chief of Naval Operations (CNO) sponsor. In those instances where a training device itself requires an Operational Requirement (OR) per reference (k), the TDRD can replace the OR. (Such TDRDs will, in addition to all other TDRD procedures, be endorsed for approval by OP-098.) Approved TDRDs are required per the following milestones:

(1) Prior to Milestone II for training devices integral to a major system acquisition.

(2) By Milestone I (for submission with the System Concept Paper) for training devices which are themselves designated major system acquisitions.

(3) Not later than the Program Objective Memorandum (POM) submission in which budget year funds are requested for manufacture of the prototype or the first device for generic, "non-system" - related training devices.

A) i. An initial assessment of the Training Effectiveness Evaluation (TEE) requirement will be addressed in the TDRD. When necessary, an approved Training Effectiveness Evaluation Plan (TEEP) is required no later than one year before planned commencement of the TEE.

A) j. A Military Characteristics (MC) document will be developed for each approved TDRD consistent with the acquisition strategy selected by the Principal Development Activity (PDA). A sponsor approved document, which includes all data required by the MC, can be substituted for the MC document.

A) k. Fleet Project Teams (FPTs) will participate in the development, acquisition, acceptance, and validation of training devices.

A) l. A vigorous Quality Assurance and Revalidation (QA&R) Program will be maintained for training device systems, including all complex devices and devices supporting mission critical skills. The Training Agent (TA) will recommend priorities for devices to be included in this program.

R) 7. Training Device Requirements Document (TDRD) and Training Effectiveness Evaluation Plan (TEEP). The format and guidance for the TDRD, which will serve as a Development Plan (DP), and TEEP are provided in enclosures (2) and (3), respectively.

8. Military Characteristics (MC) Document. The requirement for a MC document is addressed in enclosure (4). (A

9. Fleet Project Team (FPT). FPT participation in training device acquisition and management is addressed in enclosure (5). (A

10. Quality Assurance and Revalidation (QA&R). QA&R of training devices will be conducted in accordance with enclosure (6). (A

11. Responsibilities. Responsibilities for carrying out the policies and procedures of this instruction are delineated in enclosure (7).

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DEFINITIONS

1. Certification/Verification. Inspection performed on a major training device system to determine if the fidelity, dynamics, and configuration of the training device system adequately meets the requirements established by the mission profile. Also determines the extent to which the simulated systems can be used for training normally conducted in the operational equipment. (A

2. Fleet Project Team (FPT). A team of knowledgeable representatives from the fleet or other user and interested non-user activities, consisting of qualified military and/or civilian personnel. As delineated in enclosure (5), the FPT is established by, and is responsible to, the program sponsor for assisting and advising the Principal Development Activity in technical, operational, tactical, and Fleet specific matters relative to the training device design, development, test, and acceptance. (A

3. Principal Development Activity (PDA). The agency assigned by the cognizant Systems Commander or Deputy Chief of Naval Operations (DCNO)/Director Major Staff Office (DMSO) program sponsor to undertake the management and technical responsibility of the development within the approved plan. (A

4. Program Sponsor. The DCNO/DMSO who is responsible for determining program objectives, time phasing and support requirements, and for appraising progress, readiness, and military worth for a given system, function or task. (A

5. Quality Assurance (QA). A planned, systematic pattern of actions to ensure confidence in a training device system's continued satisfactory performance to meet fleet training requirements. Enclosure (6) addresses QA. (A

6. Military Characteristics (MC). Those characteristics of a training device upon which depend its ability to perform desired military functions. Military characteristics include physical and operational characteristics but not technical characteristics. Enclosure (4) addresses MC documents. (A

7. Ready for Training (RFT). After a training device has been tested at the trainer site, the condition in which the device and its associated logistics support, maintenance support, syllabus, and instructors are certified to be available for training. (A

A) 8. Resource Sponsor. A DCNO or DMSO responsible for an identifiable aggregation of resources which constitute inputs to warfare and supporting tasks.

A) 9. Revalidation. Process of measuring the degree that a training device system continues to be required and meets prescribed technical criteria, including approved changes. Enclosure (6) addresses Quality Assurance and Revalidation (QA&R).

A) 10. Sponsor. Refers to the program sponsor and/or resource sponsor, as appropriate.

11. Training Agent (TA). An office, command or headquarters exercising command over and providing support to some major increment of the Department of the Navy's formalized training effort. TA's are: the Commander in Chief, U.S. Atlantic Fleet; Commander in Chief, U.S. Pacific Fleet; Commandant of the Marine Corps; Chief of Naval Education and Training; Commander, Naval Medical Command; and Commander, Naval Reserve Force.

12. Training Device Requirements Document (TDRD). A document which specifies the training device requirement and provides the plan which integrates the specific training device hardware/software system being developed and acquired with the training system of which it is an integral part. This document includes all elements of a training device development plan defined in reference (a) and will fulfill the requirement for this plan. Enclosure (2) provides the specific guidance to develop the TDRD.

R) 13. Training Device/Simulator. Hardware and software designed or modified exclusively for training purposes involving, to some degree, simulation or stimulation in its construction or operation, so as to demonstrate or illustrate a concept or simulate an operational circumstance or environment. For the purpose of this instruction, the term training device will include training simulators. The term "training device system" includes the training device and its supporting logistics, maintenance, instructional development, and facilities. Training devices do not include training targets, which are developed per reference (k).

A) 14. Training Effectiveness Evaluation (TEE). An analysis of training capability and potential value of a training device in enabling students to achieve program learning objectives. The TEE Agent (TEEA) conducts the actual TEE.

R) 15. Training Effectiveness Evaluation Plan (TEEP). A plan to evaluate the degree to which the training device meets its

criteria to train and specific training objectives. Enclosure (3) provides guidance to develop the TEEP.

16. Training Support Agent (TSA). An office, command or headquarters responsible for supporting the training agent by providing material and other forms of support within the cognizance of the office, command or headquarters involved. (E.g. Systems Commands, Type Commander, Training Commands.)

17. Training System. The curriculum materials, classroom aids, training simulators and devices, technical training equipment (TTE), and other equipment used to train active duty and reserve military personnel and selected civilians to operate, maintain and employ a material system. This includes individual and team training, initial and follow-on training, on-the-job training, proficiency training, and the facilities and logistic support for training simulators, devices and equipment. The training system is described in the applicable Navy Training Plan (NTP).

TRAINING DEVICE REQUIREMENTS DOCUMENT (

1. The following guidelines are provided for the the TDRD by the designated Systems Command/Princi Activity.

a. This document specifies the training devi and provides the plan for integration of the spec device hardware/software being developed and acqu instructional and proficiency training system of part. A TDRD can be prepared for a suite of trai under one weapon system program (if appropriate a for specific individual training devices. If pre tation is cited, provide a brief summary of the m related to the TDRD.

b. The TDRD will be referenced in the approp Training Plan (NTP), and in specified instances c by the program sponsor in lieu of the requirement tional Requirement (OR) (as addressed in paragrap instruction). As delineated in enclosure (7), pa after review of a draft TDRD, a proposed version forwarded to the program sponsor. The program sp it to OP-11 for approval. When the TDRD is repla requirement for an OR, the following will be incl distribution of drafts for review and of approved Resource Sponsor, OP-098, OP-04, OP-090, and OP-0 strategic nuclear systems).

2. Content and Format. The TDRD will address th items as data become available.

a. Cover Sheet. Identify the title and numb training device in the center of the page followe Device Requirements Document." Mark it "Draft," blank if being submitted for approval. In the lo corner show the date prepared, activity preparing and the sponsor. If the TDRD is submitted in lie cover sheet will be annotated accordingly.

b. Table of Contents. Provide a Table of Co

c. I. Requirement. Describe the requiremen description of the device in general terms. Addr comings of existing systems, if any.

d. II. Training Analysis

(1) II.A. Training Situation

R) (a) II.A.1 Subject. Describe the ship class/aircraft type, equipment, system; the basic subject of the training involved; and, identify the type of training provided by the device (operator, maintenance, team, etc.). If available, indicate related NTP title and number.

R) (b) II.A.2. Performance Requirements. Identify the level of training the device will provide (e.g. operator - overview or specific; maintenance - organizational, intermediate, or depot). Address the ability of the device to maintain or improve safety.

(2) II.B. Training Objectives. Provide a list of major training objectives supported by the device.

(3) II.C. Training Device Purpose. Provide a short assessment of what training value will be derived from the device.

(4) II.D. Functional Requirements

R) (a) II.D.1. Number/Locations/RFT. Identify the number of training devices, locations required, and ready-for-training (RFT) dates. Identify any replaced devices.

(b) II.D.2. Students. Identify projected student flows.

(c) II.D.3 Instructors/Support. Identify requirements for instructors and other support manpower (Navy billets, military or civilian). (Use Part III if contractor support is to be utilized.)

(d) II.D.4. Facilities. Identify facility
R) requirements in support of the training device. Refer to the Equipment Facility Requirements (EFR) document as appropriate (reference (o)).

(e) II.D.5. Documentation. Identify curriculum and training device peculiar documentation required to support the training. (For example, student/instructor guides, technical manuals, etc.)

(f) II.D.6. Reserves/Joint Services/Foreign Military
R) Applicability. Identify applicability to Reserve, National

Guard, Joint Services, and foreign military training needs. Indicate not applicable if none.

e. III. Logistic, Configuration Management, and Contractor Support Considerations. Identify any logistic (e.g., spare parts) and configuration management (reference (f)) considerations that may impact the training device acquisition strategy. Towards the requirement of supportability by initial operational capability (IOC), provide the status of the related Integrated Logistics Support Plan (ILSP). Address requirements for Contractor Operation and Maintenance of Simulators (COMS). If COMS not to be utilized, so state. (R

f. IV. Resource Impact

(1) IV.A. Resource Requirements. Provide resource impact for the selected training device program. Include addressal of acquisition costs, facilities, operator and maintenance staffing, and annual operating costs by appropriation for the Five-Year Defense Program (FYDP) years. Appropriations include Research, Development, Test and Evaluation, Navy (RDT&E,N); procurement, including Aircraft Procurement, Navy (APN), Shipbuilding and Conversion, Navy (SCN), Weapons Procurement, Navy (WPN), and Other Procurement, Navy (OPN); Military Construction (MILCON); Operations and Maintenance, Navy (O&MN); and Military Personnel, Navy (MPN). (R

(2) IV.B. Acquisition Strategy. Summarize the overall plan for contracting and procurement, including: contract type, incentives, competition, and rights to technical data. If commercial hardware or software is available, but not used, explain the rationale for the decision to not use it. If not available, so state. (A

(3) IV.C. Modification Plan. Provide a modification plan by fiscal year.

g. V. Milestones. Provide key milestone dates in the acquisition and implementation of the training device program. (A

h. VI. Actions/Decisions. Indicate any key actions and decisions to be resolved (with lead/assist responsibilities and due dates). Address the requirement for Training Effectiveness Evaluation (TEE). (A

i. VII. Points of Contact. Provide key points of contact (e.g. OPNAV Sponsor, OP-11, PDA, TSA, TA, etc.) by Command, Code, Name, Title, and Telephone (Autovon/Commercial). (A

j. VIII. Glossary. Provide a Glossary of Terms and Acronyms. (A

TRAINING EFFECTIVENESS EVALUATION PLAN (TEEP) (A

1. PURPOSE. The following guidelines, in addition to references (a) and (d), are provided for the preparation of Training Effectiveness Evaluation Plans. A TEEP will identify and describe the intended training effectiveness evaluation (TEE) process. The TEE is an assessment of the effectiveness of a training device to lead students to the achievement of the program learning objectives. A TEE provides an analysis of training capability based on demonstrated trainee performance improvements directly attributable to the training received on the device being evaluated. A TEEP shall be developed by the PDA for all training devices supporting major weapon systems, training devices that are themselves major systems, non-system devices costing in excess of stated thresholds, and any device as requested by the sponsor. Exceptions are identified in paragraph 5b of this enclosure. TEEPs will be prepared for existing training device programs in the final phases of acquisition if they already have a TDRD. An approved TEEP is required no later than one year before planned commencement of the TEE. The timeframe for initial conduct of a TEE is six months after the first use of the device in a course or after conduct of the second course session using the device, whichever is later.

2. TEEP FORMAT. Each TEE presents a set of unique problems. Consequently, individual, detailed evaluation plans must be developed for the TEE Agent (TEEA) who will conduct the TEE. Each TEEP must, at the minimum, address and provide details (as applicable) on items in the following format:

a. Cover Page. Identify the title and number of the training device in the center of the page followed by "Training Effectiveness Evaluation Plan." Mark it "Draft", or leave status blank if being submitted for approval. In the lower right corner include the date prepared, and (by organization/ code) the program sponsor, TA, TSA, and activity preparing the document.

b. Table of Contents. Provide a Table of Contents.

c. I. Program Identification.

(1) I.A. Device name and number.

(2) I.B. TEEP developer and date submitted.

(3) I.C. Date TDRD approved.

(4) I.D. Host activity and location of training site(s).

(5) I.E. Device PDA.

(6) I.F. Identification of TEEA (single organization or organizations to send team members with lead activity identified).

(7) I.G. Planned ready-for-training (RFT) date.

(8) I.H. Number and rank/rate/rating of students to be considered.

(9) I.I. Number and type of instructor/support personnel.

d. II. Planned Evaluation. Each evaluation plan must address and provide specifics on the following (as applicable):

(1) II.A. The adequacy of curriculum, student/instructor qualifications, and device integrated logistic support (ILS).

(2) II.B. The goals to be met by the evaluation (i.e., the specific information that is required from the TEE about a device or its use).

(3) II.C. A description of the training device and how it supports the overall training program.

(4) II.D. Training tasks assigned to be accomplished through use of the training device(s).

(5) II.E. The standards (criteria) to be employed to determine whether the stated objectives can be or have been met by device use. (This assessment constitutes step one of the TEE; step two is evaluation of the device itself).

(6) II.F. The specific approach that will be used to conduct the TEE, including:

(a) Evaluation strategy or strategies to be employed (see paragraph 3 of this enclosure).

(b) Training scenarios (when appropriate).

(c) Data to be collected.

(d) Techniques/procedures that will be used for collecting data.

(e) Details as to how measuring instruments will be selected, modified, developed, and used during the TEE.

(f) Details as to how the collected data will be processed and reported to reflect training effectiveness.

(7) II.G. The schedule for data collection and completion of the TEE.

(8) II.H. The numbers and types of personnel required to monitor, collect, and process the data.

(9) II.I. Any special training requirements for personnel who will monitor, collect, and process the data.

(10) II.J. Special resources required to conduct the TEE.

3. EVALUATION STRATEGY - EMPIRICAL EVALUATION. A TEE focusing to the extent practicable on actual experience with the device/system, as required by reference (a), is defined as an empirical evaluation. An empirical TEE is an assessment of the given training system against the established learning objectives.

The user conducts the training course with actual students. An evaluation team observes and monitors the training. Data are collected and analyzed concerning the ease and degree to which the training objectives are met. Examples of information recorded, as practicable, include the following:

a. Device design deficiencies that limit or preclude effective training.

b. Difficulties in establishing optimum or required learning conditions.

c. Student progress toward achievement of learning and/or training objectives.

d. Capability of meeting established criteria.

e. Student and instructor attitudes relating to the acceptance or rejection of the training device/system.

f. Student proficiency at the end of training as determined using course-based criteria tests.

4. TEE AGENT SELECTION. In the selection of a TEEA, the program sponsor must consider the extent of TEE desired and how it will be conducted. To ensure a meaningful evaluation, the TEEA must have no organizational conflict of interest, must possess or be provided dedicated resources, and must be able to report results directly to the program sponsor. Conduct of the TEE requires the application of a number of diverse skills which are a function of what specifically will be accomplished by the TEE. The TEEA could be the TA, sponsor, PDA/Systems Command (SYSCOM), or a contractor; or a team of personnel from these organizations (with a designated "Lead" activity). The following skills should be available to the TEEA:

a. Capability to analyze the curriculum and instructional strategies.

b. Capability to make a technical assessment of the device, particularly its capabilities and potential.

c. Capability to prepare specific tests and perform subsequent analyses of the data collected.

d. Subject matter expertise.

5. INITIAL/REPEAT TEEs

a. Each TEEP will undergo a draft review process, followed by preparation of a proposed version. The proposed TEEP is forwarded to the program sponsor for approval. The approved TEEP is distributed to OP-11, PDA, TA, and others as appropriate.

b. If a similar training device has already successfully completed a TEE, a TEEP on the new device may not be required; or, a full TEE may not be required but only an evaluation (and TEEP) for the "differences".

c. If the conduct of a TEE results in the determination of unsatisfactory findings, the TEEA will track progress until rectification of all training device deficiencies. Program sponsor will determine the need for conducting a follow-up TEE.

6. TEE RESULTS. Results of the TEE will be provided in a letter signed by the senior member of the TEEA team (or lead activity) containing the significant findings and recommendations, including identification of action offices. This letter will be sent to the sponsor with a copy to CNO (OP-11). An enclosure to the cover letter will be a technical evaluation which contains background and detailed information on the TEE and its results. Resolution of identified deficiencies will be documented by the sponsor.

MILITARY CHARACTERISTICS (MC) DOCUMENT (A

1. PURPOSE. The MC document defines the basic physical and functional baseline characteristics a training device must have to fulfill its requirements as one component of a total instructional system. An MC results from a training analysis of the knowledge and skills required to operate and maintain a system or equipment.

2. BACKGROUND. Training devices in support of new or modified systems or equipment are very valuable adjuncts to the instructional programs required to provide knowledgeable and skilled professionals to operate and maintain the Navy's systems and equipment. A well thought-out process, including front-end training analysis, is necessary to ensure that appropriate training devices are procured. As part of this process, a baseline document is needed to establish the basic physical and functional characteristics of a training device. This is the MC document.

3. DISCUSSION

a. In the flow of documentation prior to procurement of a training device, the MC document comes after the media selection process and the TDRD. It supports and expands upon the TDRD. The MC document will describe the minimally required functional operating capabilities of a training device to meet a particular training need. It will be developed consistent with any known constraints of cost, producibility, state-of-the-art technology, and supportability.

b. Approval of the MC document will follow a formal process. This process will ensure agreement between the PDA and the user/FPT prior to forwarding the MC document to the appropriate sponsor for approval. The MC document becomes the baseline for the preparation of a Type A Engineering Specification per Military Standard 490A to procure the device.

c. An approved MC document is required prior to initiating procurement action for a training device.

4. MC DOCUMENT FORMAT. Except for basic weapon system program or training device identification information, the MC document will not duplicate any data already provided in the TDRD. The MC document may require more information on a particular area than the TDRD provides. However, if the TDRD addressal is appropriate, it should be referenced vice repeated. Within this constraint, the MC document should, as a minimum, include:

a. Cover Sheet. Identify the title of the training device, the MC document number, device designation, originating command; provide concurrence blocks (including user/FPT Chairperson and PDA, if not the originator), and approval block for the OPNAV program sponsor.

b. Table of Contents. Provide a Table of Contents.

c. Executive Summary. A brief discussion of the requirement and high level description of the device and where it fits in the training system.

d. Requirement. This section identifies the training need for which this document is being prepared. It includes a description of the operational or tactical system/equipment which forms the basis of the training requirement and discusses the purpose and functional use of the operational system/equipment.

e. Training Analysis. Assumptions, methodology, training goals, and training device operation/projected utilization will be addressed to the extent of details required that are not available in the TDRD.

f. Training Device Description. This section describes the functional characteristics of the proposed training device to enable visualization of its physical configuration and capability to achieve the learning objectives. In addition to the functional characteristics, constraints are discussed, as well as instructor/operator/student stations, instructional support features, number of devices, interfaces, installation requirements, and availability and use goals.

g. Training Device Support. This section provides the concepts, goals, and constraints which will control development of the integrated logistics support package for the training device.

h. Training Device Tests and Evaluation. This section identifies what tests and evaluations will be conducted. It will also refer to the TEEP, if available.

i. Training Device Updates. If there is a need for a preplanned product improvement (P3I) program, it will be addressed in the MC document.

5. MC DOCUMENT DEVELOPMENT. The MC document will be developed by the PDA (or by an activity designated by the PDA), who will:

a. Develop the MC document using the basic guidance provided here.

b. Coordinate drafts with sponsors, FPTs (or user(s) if no FPT is established), the PDA (if not the actual developing activity), and the TA.

c. Forward final proposed MC documents to the appropriate sponsor for approval via sponsor-designated commands.

d. Distribute approved MC documents to appropriate commands (including, but not limited to, OPNAV sponsor, OP-11, PDA, TA, TSA, and FPT).

FLEET PROJECT TEAM (FPT) (A

1. PURPOSE. To delineate responsibility and establish procedures by which training agents, user activities, and other interested non-users may participate in the development, acquisition, acceptance, and life-cycle configuration/modification of major training devices.

2. BACKGROUND. The complexity, expense, and lead time planning associated with the introduction of modern training devices, and the impact of these devices on fleet readiness, necessitates close coordination and cooperation between the fleet user, the Systems Command/PDA, the TA, and other interested non-user activities to ensure that fleet training requirements are satisfied on a cost effective basis. Therefore, projected trainer capabilities must be validated in the development, acquisition, and acceptance phases of the procurement. This can best be accomplished through active participation of knowledgeable fleet representatives on a FPT in each of these phases.

3. FUNDING SUPPORT. Travel and per diem funds required for FPT members in support of this program shall be provided by the members' respective parent command, with the exception of Marine Corps Fleet Project Team participation in the development of aviation training devices which will be funded by the Commandant of the Marine Corps (Code TDA).

4. RESPONSIBILITIES. Specific command responsibilities related to Fleet Project Teams are delineated in enclosure (7).

5. FLEET PROJECT TEAM ROLE, FUNCTIONS, AND DUTIES:

a. Role. To assist the PDA in the development, acquisition, acceptance, introduction, and life-cycle configuration/modification of training devices.

b. Functions

(1) To act in an advisory capacity to the PDA during the development, acceptance, and life-cycle configuration/modification of the training device.

(2) To act as reviewer, inspector, and tester, as requested by the sponsor or the PDA in order to validate projected trainer capabilities at certain points in the development program to assist in the effort to ensure that the end product satisfies the stated training requirements in a cost effective manner.

(3) To assist the PDA in developing qualitative and quantitative training objectives for incorporation in the MC document.

c. Duties

(1) Maintain a correspondence file for the device.

(2) Attend and actively participate in appropriate conferences, reviews and meetings which should include as a minimum the following:

(a) Review of device related documentation (e.g., training syllabus, MC documents, specifications, integrated logistics support, TEEP, equipment facilities requirements (EFR)).

(b) Technical and Mock-up Review.

(c) Design Freeze Reviews.

(d) In-plant Preliminary Inspection, Test and Check-out.

(e) On-site Final Inspection, Test and Check-out.

(f) Determination of Trainer Ready-for-Training (RFT) status.

(g) Training Device Maintenance Review.

(3) Provides guidance to the PDA on the requirements of command(s) concerned. Unresolved changes to the device shall be submitted to the program sponsor via the TA and TSA for resolution.

(4) Assist in developing/reviewing (if contractor developed) the training syllabus in which the device will be used.

(5) Assist the PDA in the development/review of trainer performance acceptance criteria which will be used to determine the acceptability of the trainer for the Navy.

(6) Inform the PDA, in writing, of known changes in operational procedures, tactics, planned operating environment, training concept, syllabus, and training plans which may have an effect on the trainer capabilities and/or delivery date. Provide operational data to the PDA when requested.

(7) Make all comments/recommendations that could affect the scope of work to the PDA. (Only the Procuring Contracting Officer has the authority to implement contractual action which affect cost, schedule, or performance.)

(8) Perform operational mission profile manuevers on the trainer to determine device performance and provide a written report to the PDA.

(9) Recommend validation of RFT to the appropriate TA via the PDA. Assist the TA in accepting the device per the applicable EFR.

(10) Prepare a list of trainer deficiencies which, if corrected, would make a device ready-for-training. Submit the original document to the PDA with copies to all commands and agencies concerned.

(11) Receive, evaluate and relay to the PDA comments and recommendations from the operational units and/or TA(s) on definitive problem areas related to the training device which adversely affect user training plans and programs.

(12) FPT members, in the case of reassignment, ensure that their commands are apprised of the need to appoint a replacement and ensure that the replacement is brought up-to-date on all past and planned proceedings.

(13) The chairperson of the FPT, as designated by the sponsor, will:

(a) Take steps to resolve all internal differences of opinion and serve as spokesperson for the FPT.

(b) Ensure that all team members are aware of the development and acquisition status of the training device and that changes are properly promulgated and reviewed by team members.

d. Reporting. Report in writing to the PDA the result of conferences/reviews/meetings highlighting direction given and decisions made. Unresolved disagreements the FPT may have with the PDA are to be reported to the program sponsor in writing. Information copies of all correspondence will be provided to the program sponsor, OP-11, PDA, TA, and appropriate chain of command.

6. PDA SUPPORT. PDA support of the FPT process includes:

a. Make recommendations to the sponsor for the timely formation of a FPT. Membership recommendations should be included to provide for the earliest participation of the FPT in definition of the training device requirements and capabilities.

b. Keep the sponsor, OP-11, TA, FPT members and their commands apprised of the status, planning, changes, and progress of pertinent devices.

c. Provide sponsor, OP-11, TA, FPT members and their commands with an advance schedule of conferences, indicating which would be most beneficial for FPT attendance. This will allow advanced budgetary planning for travel and per diem funds required for FPT members.

d. Report recommended changes resulting from the aforementioned conferences which entail modifications of program sponsor approved military characteristics, overall program costs, or device lead time, to the sponsor for approval (copies to OP-11 and the TA) prior to incorporation. The PDA will fully coordinate the proposed changes with the program sponsor.

e. Conduct acceptance tests in concert with the FPT.

f. Accept the training device for the Navy from the contractor.

g. Confirm the training device as being RFT to the program sponsor via the FPT and TA, with copies of the written notification to OP-11 and other concerned activities.

QUALITY ASSURANCE AND REVALIDATION (QA&R) (A

1. PURPOSE. To establish the requirement for a Quality Assurance and Revalidation (QA&R) Program for training device systems.

2. BACKGROUND. The continuing emphasis on using simulation to compensate for reduced operational time requires a quality assurance program to ensure the continued effective performance of the system/equipment during its life cycle. The QA&R Program is structured to complement all training device system programs from acquisition to obsolescence. Through continued review using QA&R procedures, training device systems quality can be maintained.

3. OBJECTIVES. The QA&R Program will provide a procedure which ensures that training systems continue to perform as outlined in approved QA&R test criteria and meet approved training requirements. In addition, it will provide for forecasting and verifying requirements for modification and modernization by periodic revalidation of equipment. This revalidation should ensure a device meets current training requirements throughout its life cycle. Specifically, the program will:

a. Ensure that a training device system meets the current training mission requirements of the training agent.

b. Ensure that training device systems operate within current prescribed technical and operational acceptance criteria, including approved modifications.

c. Forecast requirements for modification and/or modernization.

d. Provide feedback data for continual improvement of the logistic support program.

e. Improve maintenance support techniques and procedures.

f. Improve safety and maintenance.

g. Maintain a continuous training device systems status record.

h. Maintain and improve the material reliability/integrity of training systems.

i. Identify action required to correct deficiencies.

4. QA&R FORMAT. Each QA&R Report will be structured as follows:

a. Cover Sheet (with title, date, location, and submitting organization identified)

b. Table of Contents

c. Executive Summary

d. Operational Evaluation

e. Product Improvement

f. Configuration Status

g. Overhaul/Rework

h. Systems Test

i. Logistic Support Review

j. Appendix I - Personnel Contacted

k. Appendix II - Action Item Assignment Sheets

l. Additional Appendices (can be provided as required by unique circumstances)

5. QA&R INSPECTIONS. Selection of units for inclusion in the QA&R Program will be made based on overall cost factors, training mission requirements, and personnel safety considerations. QA&R inspections to determine overhaul, relocation condition, and precertification or verification status may be recommended by the TA, as required. Additionally, special inspections to determine the condition of equipment prior to contractor installed modifications may be scheduled if needed. Training devices involving naval aviation physiological training, water survival, firefighting, or other similar safety considerations shall be scheduled annually.

6. SYSTEMS COMMANDS PARTICIPATION. Systems Commands (SYSCOMs) will:

a. Design and implement QA&R programs to meet the objectives in paragraph 3 of this enclosure.

b. Establish and maintain QA&R report requirements, ensuring that reports are forwarded to the sponsor, OP-11, and others as appropriate.

c. Submit POM requirements, budget, and provide resources and technical personnel required for implementation and operation of the QA&R Program.

d. Provide annual program reviews to sponsors, OP-11, and the TAs.

e. Identify a program coordination activity to serve as focal point for the QA&R Program.

f. Ensure timely resolution of action items assigned to the TSA or support activities.

7. TRAINING AGENT PARTICIPATION. The TA will:

a. Participate with the SYSCOM program coordination activity in implementing and operating an effective QA&R Program, per SYSCOM instructions.

b. Provide qualified senior inspector personnel.

c. Coordinate with the SYSCOM for the establishment of inspection schedules and instructions for subordinate commands.

d. Advise the SYSCOM on the status of unresolved QA&R actions affecting the operation of subordinate command training devices, with copies to the sponsor and OP-11.

e. The responsibilities of the TA with regard to the QA&R Program may be delegated as appropriate, but not below echelon three commands.

RESPONSIBILITIES

1. The Deputy Chief of Naval Operations (Manpower, Personnel and Training) will:

a. Assume overall responsibility for coordination of the implementation of this instruction and the execution of its specific provisions.

b. Review, approve, and forward, as appropriate, the TDRD and subsequent changes.

c. Review the draft TEEP. (A

d. Assess the adequacy of training device acquisition funding in all appropriations.

2. The program sponsor will:

a. Ensure that training devices are accorded the same priority as the principal weapon and/or training system.

b. Identify training device requirements in program planning and programming documents.

c. Ensure that training device development is supported by an approved TDRD and TEEP as required by this instruction. When available, forward the proposed TDRD to OP-11 for approval with an endorsement and a recommended distribution list. Review and approve the TEEP. Subsequent updates to the TDRD and TEEP will be subject to the same approval process as the original document. The TDRD must be reviewed in conjunction with each NTP update to assure training devices are kept current with the operational systems/equipment. (R

d. Assign a TEEA per enclosure (3). Follow-up deficiencies identified during the TEE. (A

e. Assure training devices are addressed in NTPs developed per reference (j). If the device is in support of an update to the training system, make appropriate changes to the existing NTP.

f. Ensure that OPNAV acquisition program reviews and decision forums address training device acquisition.

g. Oversee the MC approval process and approve MCs prior to procurement of the training device. (A

A) h. Establish a FPT for each major training device, designate a FPT chairman, and assign FPT members or direct that the appropriate TA submit a proposed FPT membership for approval.

3. The resource sponsor will:

a. Participate fully with program sponsors (if different) in the review and approval of training requirements for new program starts and in the update of training requirements for systems in development or production. Ensure that training devices are accorded the same priority as the principal weapon and/or training system.

R) b. Plan and program training device resource requirements. This includes the resources required to conduct the TEE (except TEEA manpower requirements).

A) 4. OP-098 will endorse TDRDs (in addition to the appropriate sponsor) to OP-11 for approval in those instances where the training device by itself requires an OR per reference (k) and the TDRD is replacing the OR.

5. The designated SYSCOM or PDA will:

a. Address training device requirements in the Development Options Paper (DOP).

R) b. Originate the TDRD and TEEP per enclosures (2) and (3). Upon review and concurrence of the program sponsor, forward a copy of the draft TDRD and TEEP for comment to OP-11, OPNAV sponsor, OP-098 if applicable, the appropriate TA/Fleet Commanders in Chief (FLTCINCs), and others as appropriate, prior to preparation of a proposed version to be submitted for approval. (Additional review organizations for TDRDs being submitted in lieu of an OR are identified in paragraph 1b of enclosure (2).) Forward the proposed TDRD to OP-11 for approval via the sponsor (also via OP-098 when required as addressed in paragraph 4 of this enclosure). Forward the proposed TEEP to the sponsor for approval.

A) c. Participate in the conduct of TEEs as requested by sponsors.

d. Develop an acquisition strategy that complies with Department of Defense (DOD) acquisition guidelines.

e. Ensure system program managers are chartered with the authority and responsibility for identification of training

device requirements, programming, budgeting and acquisition of the total training system as an integral support element of the assigned weapon system.

f. Ensure program reviews and decision forums address training device acquisition.

g. Prepare the draft MC document, coordinate draft review, forward the proposed MC document to the appropriate sponsor for approval, and distribute upon approval. (A

h. Support the FPT as delineated in enclosure (5). (A

i. Establish and implement a QA&R Program for training device systems per enclosure (6) (at the SYSCOM level). (A

6. The TA will:

a. Coordinate with the sponsor and designated SYSCOM in the preparation of the TDRD and TEEP. (R

b. Participate in the conduct of TEEs. (A

c. Participate from the outset in development of documents that influence life-cycle support, personnel requirements, and instructional methodology; e.g., front-end analysis of training alternatives, MC documents, and life-cycle support plans.

d. Submit a TDRD for OP-11 approval and a TEEP for sponsor approval, after draft review by OP-11, OPNAV Sponsor, and others as appropriate, for any training device planned to be procured locally (TA is PDA). (R

e. Execute the transfer of responsibility for the training device with the designated SYSCOM upon completion of the project.

f. Participate in QA&R Programs per enclosure (6). (A

g. Additionally, FLTCINCs will review and comment, as appropriate, on draft TDRDs and TEEPs from the standpoint of the device's effectiveness in meeting fleet training needs. (R

7. The TEEA will conduct the TEE in accordance with the TEEP. (A

8. FPT role, functions, and duties are as delineated in enclosure (5). Activities designated as FPT members by the program sponsor for a specific training device will provide representation on the FPT. Representation for the FPT from other user activities and non-user activities with special (A

expertise can also be directed by the program sponsor. Within limitations imposed by rotation dates and primary duty assignments, every effort shall be made to ensure that personnel assigned to FPTs are capable of following the device from initial development through delivery and RFT. A minimum of one qualified representative to the FPT will be provided when requested.